

Safety Data Sheet according to Regulation (EU) No. 1907/2006

FROWEIN GmbH & Co. KG

Revision date: 28.06.2010

Revision no.:

1,03

DETMOL-flex

00434-0013

1. Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

DETMOL-flex

Use of the substance/preparation

Pesticide

Company/undertaking identification

Manufacturer

FROWEIN GmbH & Co. KG

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Responsible Department:

Responsible for the safety data sheet: sds@gbk-ingelheim.de

2. Hazards identification

Classification

Indications of danger : Irritant, Dangerous for the environment

R-phrases:

May cause sensitization by skin contact.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Vapours may cause drowsiness and dizziness.

3. Composition/information on ingredients

Chemical characterization (Mixture)

Preparation in organic solvents

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
212-377-0	811-97-2	1,1,1,2-Tetrafluoroethane	< 75 %	
203-539-1	107-98-2	1-Methoxy-2-propanol	< 15 %	R10-67
200-662-2	67-64-1	Acetone	< 15 %	F, Xi R11-36-66-67
258-067-9	52645-53-1	Permethrin (ISO)	< 5 %	Xn, N R20/22-43-50-53
265-149-8	64742-47-8	Distillates (petroleum), hydrotreated light	< 5 %	Xn R65-66
232-319-8	8003-34-7	Pyrethrum	< 1 %	N, Xn R20/21/22-50-53

Full text of each relevant R phrase can be found in heading 16.

4. First aid measures

General information

Remove contaminated soaked clothing immediately.

If you feel unwell, seek medical advice.

After inhalation

Move to fresh air in case of accidental inhalation of vapours.

In the event of symptoms refer for medical treatment.

After contact with skin

Wash off immediately with plenty of water and soap for at least 15 minutes.

Consult a physician.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Consult (eye) doctor immediately.

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After ingestion

Summon a doctor immediately.

Do not induce vomiting.

Immediately give plenty of water (if possible charcoal slurry).

Induce vomiting only upon the advice of a physician.

5. Fire-fighting measures

Suitable extinguishing media

Foam, carbon dioxide (CO₂), dry chemical, water-spray.

Extinguishing media which must not be used for safety reasons

Full water jet.

Special exposure hazards arising from substance or preparation itself, combustion products, resulting gases

Fire may produce:

Carbon monoxide and carbon dioxide.

Chlorine compounds.

Fluoro pyrolysis products.

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective suit.

Additional information

Heating will cause pressure rise with risk of bursting.

Vapours are heavier than air and spread along ground.

Do not release chemically contaminated water into drains, soil or surface waters. Sufficient measures must be taken to retain water used for extinguishing.

Cool containers at risk with water spray jet.

6. Accidental release measures

Personal precautions

In case of vapour formation use respirator.

Ensure adequate ventilation.

Remove persons to safety.

Use personal protective clothing.

Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

Methods for cleaning up/taking up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).

Shovel into suitable container for disposal.

Additional information

Clean contaminated surface thoroughly.

7. Handling and storage

Handling

Advice on safe handling

Keep container tightly closed.

Vapours are heavier than air and spread along ground.

Avoid contact with the skin and the eyes.

In case of insufficient ventilation, especially in confined areas.

Do not breathe vapours or spray mist.

Advice on protection against fire and explosion

No special protective measures against fire required.

Storage

Requirements for storage rooms and vessels

Keep container tightly closed in a dry, cool and well-ventilated place.

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Advice on storage compatibility

Incompatible with oxidizing agents.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

8. Exposure controls/personal protection**Exposure limit values****Exposure limits (EH40)**

CAS-No.	Chemical name	ml/m ³	mg/m ³	F/ml	Category	Origin
811-97-2	1,1,1,2-Tetrafluoroethane (HFC 134a)	1000	4240		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
107-98-2	1-Methoxypropan-2-ol	100	375		TWA (8 h)	WEL
		150	560		STEL (15 min)	WEL
67-64-1	Acetone	500	1210		TWA (8 h)	WEL
		1500	3620		STEL (15 min)	WEL
8003-34-7	Pyrethrum (purified of sensitising lactones)	-	1		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

Occupational exposure controls

Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures

Wash hands before breaks and immediately after handling the product.

When using, do not eat, drink or smoke.

Take off immediately all contaminated clothing.

Avoid contact with skin, eyes and clothing.

Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment (gas filter type A).

Hand protection

Use multipurpose protective gloves (plant protection) when spreading/handling the product.

Eye protection

Eye wash bottle with pure water.

Tightly fitting goggles.

Skin protection

Wear standard protective suit (plant protection) when spreading/handling the product. Rubber apron

9. Physical and chemical properties**General information**

Physical state:

Aerosol

Colour:

Yellowish

Odour:

Hydrocarbon-like

Important health, safety and environmental information

Test method

Changes in the physical state

Flash point:

n.a.

Lower explosion limits:

n.d.

Upper explosion limits:

Vapour pressure:

5720 hPa (*)

(at 20 °C)

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Water solubility: (at 20 °C)	Immiscible
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Other information

Ignition temperature:	n.d.
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*) Propellant

10. Stability and reactivity

Conditions to avoid

To avoid thermal decomposition, do not overheat.
Heating can release vapours which can be ignited.

Materials to avoid

Oxidizing agents.

Hazardous decomposition products

Carbon monoxide and carbon dioxide.
Chlorine compounds.
Fluoro pyrolysis products.

Additional information

No decomposition if stored and applied as directed.

11. Toxicological information

Empirical data on effects on humans

May cause sensitization by skin contact.
Vapours may cause drowsiness and dizziness.
Contact with eyes may cause irritation.
Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.
High concentration of vapours may cause irritation to eyes and respiratory system and produce narcotic effects.
Occasionally literature hints report that contact with Pyrethrum compounds may trigger hay fever similar reactions in particularly sensible persons.

12. Ecological information

Further information

Do not flush into surface water or sanitary sewer system.
Severe hazard to waters
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. Disposal considerations

Advice on disposal

Where possible recycling is preferred to disposal.
Can be incinerated, when in compliance with local regulations.

Waste disposal number of waste from residues/unused products

200119	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); pesticides Classified as hazardous waste.
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Waste disposal number of contaminated packaging

150111	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers Classified as hazardous waste.
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Contaminated packaging

Re-using the polluted packaging materials is not allowed.

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Contaminated packagings are to be treated like the product itself.

14. Transport information

Land transport (ADR/RID)

UN number: 1950

ADR/RID class: 2

Classification code: 5A

Warning plate

Hazard label: 2.2



ADR/RID packing group: -

Limited quantity: LQ 2

Description of the goods

AEROSOLS

Other applicable information (land transport)

LQ 2: combination packaging: 1 l / 30 kg (total gross mass); trays: 1 l / 20 kg (total gross mass).

Tunnel restriction code: E

Transport category: 3

Additional label with symbol "fish and tree" according to subsection 5.2.1.8.3. ADR for single packagings and inner packagings with > 5 kg or 5 L, transition period ends 31.12.2010.

Marine transport

UN number: 1950

IMDG code: 2

Marine pollutant: P

Hazard label: 2.2



IMDG packing group: -

EmS: F-D; S-U

Limited quantity: 1 L / 30 kg

Description of the goods

AEROSOLS

Other applicable information (marine transport)

Limited quantities (chapter 3.4): combination packaging: 1 l / 30 kg (total gross mass); trays: 1 l / 20 kg (total gross mass)

Additional label with symbol "fish and tree" according to subsection 5.2.1. IMDG Code for single packagings and inner packagings with > 5 kg or 5 L.

Air transport

UN/ID number: 1950

ICAO/IATA-DGR: 2.2

Hazard label: 2.2



ICAO packing group: -

Limited quantity Passenger: Y203 / 30 kg G

IATA-packing instructions - Passenger: 203

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IATA-max. quantity - Passenger:	75 kg
IATA-packing instructions - Cargo:	203
IATA-max. quantity - Cargo:	150 kg

Description of the goods

AEOSOLS, NON-FLAMMABLE

15. Regulatory information

Labelling

Additional advice on labelling

According to EC-regulations the product is to be labelled as follows:

Danger symbols:

Xi - Irritant; N - Dangerous for the environment



Xi - Irritant



N - Dangerous for the environment

Hazardous components which must be listed on the label

Permethrin (ISO)

Pyrethrum

R phrases

- 43 May cause sensitization by skin contact.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
67 Vapours may cause drowsiness and dizziness.

S phrases

- 02 Keep out of the reach of children.
13 Keep away from food, drink and animal feedingstuffs.
23 Do not breathe spray .
38 In case of insufficient ventilation, wear suitable respiratory equipment.
60 This material and its container must be disposed of as hazardous waste.
61 Avoid release to the environment. Refer to special instructions / Safety data sheets.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

Special labelling for certain preparations

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.

23 % by mass of the contents are flammable.

EU regulatory information

1999/13/EC (VOC): > 90 %

National regulatory information

Employment restrictions: Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.

Water contaminating class (D): 3 - highly water contaminating

16. Other information

Full text of R-phrases referred to under sections 2 and 3

- 10 Flammable.
11 Highly flammable.
20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
20/22 Harmful by inhalation and if swallowed.
36 Irritating to eyes.
43 May cause sensitization by skin contact.
50 Very toxic to aquatic organisms.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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53 May cause long-term adverse effects in the aquatic environment.

65 Harmful: may cause lung damage if swallowed.

66 Repeated exposure may cause skin dryness or cracking.

67 Vapours may cause drowsiness and dizziness.

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)